

Venkata Pradeep Reddy Venuthurla

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SUMMARY

Full-Stack Engineer who accelerated fintech partner integration by 67% at India's fastest-growing tech-driven bank, architected systems processing 100+ TPS. Now building AI-powered distributed systems and ML applications at ASU.

EDUCATION

Arizona State University

Master of Science, Computer Science (MSCS)

Tempe, AZ

Dec 2026

Courses: Distributed Database Systems (MS), Statistical Machine Learning (MS)

PES University

Bachelor of Technology, Computer Science and Engineering

Bangalore, India

May 2023

Courses: Web Development, Cloud Computing, Machine Intelligence, Big Data

TECHNICAL SKILLS

Programming Languages: Python (proficient), Java (proficient), JavaScript (intermediate), C/C++ (moderate), TypeScript

Frameworks & Libraries: Spring Boot, Flask, ReactJS, Node.js, MuleSoft, PyTorch, Keras, TensorFlow, Plotly

Cloud, Databases & DevOps: AWS, GCP, Docker, Kubernetes, Git, Jira, RESTful APIs, CI/CD, Linux, PostgreSQL, MySQL, MongoDB, Elasticsearch, Oracle, SQL, Redis, Kafka, Airflow, FastAPI, API Gateway, Terraform, CI/CD Pipelines.

PROFESSIONAL EXPERIENCE

IDFC First Bank

Software Engineer (*Spring Boot, ReactJS, Python, Oracle, MySQL, Kafka*)

Hyderabad, India

Jul 2023 - Jul 2025

- Architected RESTful APIs and microservices for Partner Developer Portal with sandbox environment and **dynamic API response simulation** using swagger, enabling fintech partners (Amazon Pay, Cred) to explore and **test integrations before dev environment access, reducing onboarding from 12 days to 4 days** by eliminating pre-approval access barriers.
- Engineered **full-stack API Inventory Platform** for lifecycle and compliance tracking, **improving cross-team efficiency by 60%** and **reducing RBI (Reserve Bank of India) compliance delays by 40%** via advanced filters and metadata workflow automation.
- Optimized high-throughput Digital Lending APIs to handle 100+ TPS for Aadhaar OTP and CKYC flows, with sub-second latency.
- Executed infrastructure modernization, including **on-premise to AWS migration**, **MySQL to Oracle transition**, disaster recovery upgrades, achieving **99.9% uptime**, and **reducing infrastructure costs by 50%**.

IDFC First Bank

Hyderabad, India

Application Engineer Intern (*Spring Boot, Python, Oracle, MySQL*)

Feb 2023 - Jun 2023

- Developed RESTful APIs integrating Salesforce data via MuleSoft with **OAuth 2.0 authentication and Redis caching (TTL-based)**, reducing SFDC calls, cutting costs, and **decreasing fetch time by 65%**.

Artenal

Bangalore, India

Machine Learning Intern (*Python, PyTorch, numpy, OpenCV, Keras, TensorFlow*)

May 2021 - Oct 2021

- Optimized computer vision models for fruit-harvesting robot, **improving disease classification F-1 score by 0.35**, **detection accuracy by 0.2**, and reducing inference time by 20% for real-time deployment.

PROJECTS

OmniSense | HackASU 2025, Anthropic

(*Claude, MCP, Polymarket, Valyu search, Python, RAG*)

- Built **AI-powered prediction market analytics platform** leveraging multi-agent orchestration (Planner, Researcher, Critic, Analyst, Reporter) with **Bayesian probability aggregation** and **Retrieval-Augmented Generation (RAG)** to transform unstructured web data from **20+ real-time sources** into transparent, evidence-based forecasts within **9 minutes**.

CityTraffic NLQ and Analytics | ASU, Distributed DB Systems

(*MongoDB Vector Search, Airflow, Locust, Python*)

- Engineered distributed **analytics platform with geohash-based sharding** and LLM-powered query interface, achieving **P95 latency <600ms** for **spatio-temporal queries** across 2M+ NYC traffic records.

Code Completion Models Comparative Analysis | ASU, Statistical ML

(*PyTorch, HuggingFace Transformers, BERT*)

- Implemented and **evaluated LSTM, BERT, and CodeGPT-small-java** models for Java code completion using PyTorch on 10K+ GitHub repositories, achieving **Top-K accuracy benchmarks** across **multiple context windows**.

Build My Web (Image to HTML code) | PESU, Mini Project, Prof. Vinay Joshi

(*OpenCV, TensorFlow, React, Flask*)

- Designed and deployed ML pipeline **converting hand-drawn wireframes to HTML/CSS** using **CNN+CTC model** and OpenCV, with React editor for **real-time UI customization**, achieving 95% OCR accuracy and **reducing prototyping time by 30%**.

PUBLICATIONS AND ACHIEVEMENTS

- Smart Driving Assistance Using Deep Learning, Computational Sciences and Sustainable Technologies (ICCSST 2023), **Springer, 2024**
- Competitive Programming - Achieved **Global Rank 22/3200** in **Code-Chef April Long Challenge 2022**.